

US-PAT-NO: 5177532

DOCUMENT-IDENTIFIER: US 5177532 A

TITLE: Image forming apparatus for
adjusting gradation using
subsidiary exposure

DATE-ISSUED: January 5, 1993

INVENTOR-INFORMATION:

NAME	STATE	ZIP CODE	CITY	COUNTRY
Takagi; Atsushi			Kanagawa	
N/A	N/A	JP		

APPL-NO: 07/ 509829

DATE FILED: April 17, 1990

COUNTRY	FOREIGN-APPL-PRIORITY-DATA:
APPL-DATE	APPL-NO
JP	1-98089
18, 1989	April
JP	1-101044
20, 1989	April

US-CL-CURRENT: 399/51, 355/38 , 355/77

ABSTRACT:

When to perform subsidiary exposure before or
after main exposure or
concurrently therewith with a quantity of light
corresponding to about 1/50 to
1/100 of the quantity of light of main exposure, an
image forming apparatus

according to the present invention can automatically set the standard conditions of subsidiary exposure in response to setting of the standard conditions of main exposure, and can set the optimal conditions of colors and intensity of subsidiary exposure in accordance with the amount of adjustment of gradation. Therefore, even when variations arise in the characteristics and processing conditions of a light-sensitive material or any desired gradation is chosen, natural and fine images can always be formed with no color balance distorted.

15 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

----- KWIC -----

Detailed Description Text - DETX (7):

In an image forming apparatus according to a second aspect of the present invention, particularly of the scanning exposure type, since the characteristics and processing conditions of light-sensitive material and/or image receiving material vary, for the purpose of always forming optimal images, images are actually formed (at the time of machine installation, changing of the materials and processing conditions, periodic inspection, and so on) using a test chart or test pattern to

provide hard copies, the color
density of these hard copies is measured by three
primary color sensors of R,
G, B included in an image sensor and compared with
that of the test chart or
pattern previously measured, and on the basis of
the results of comparison, the
standard conditions of color and/or intensity of
main exposure, or the extent
of insertion (.DELTA.Y, .DELTA.M, .DELTA.C,
.DELTA.D) of color filter Y, M, C
and aperture D into a light path (a reference value
is set to "0", for example)
are set.